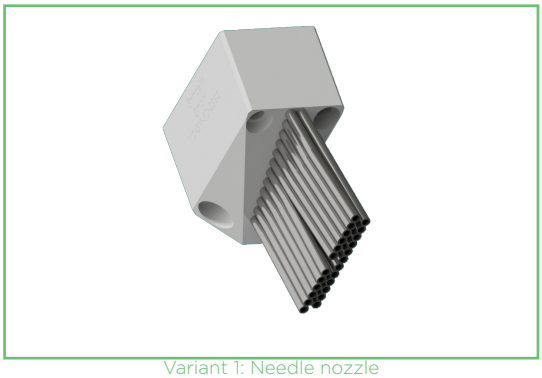
grindaix
A QUAKER HOUGHTON COMPANY

Coolant Supply Systems for **PROFILE GRINDING** (Gearing)

During surface and profile grinding, very high processing temperatures often arise due to the long contact lengths. Thermal damage to components, especially in deep grinding, must be avoided at all costs. For this purpose, we offer the Grindaix Dual Nozzle, which has been specially designed for the use of highly porous and also highly hard abrasives.



Variant 1: Needle nozzle

Product Advantages

- minimum installation space
- maximum supply width
- available for all module sizes
- reduction of the risk of grinding burn

Enhance your Productivity

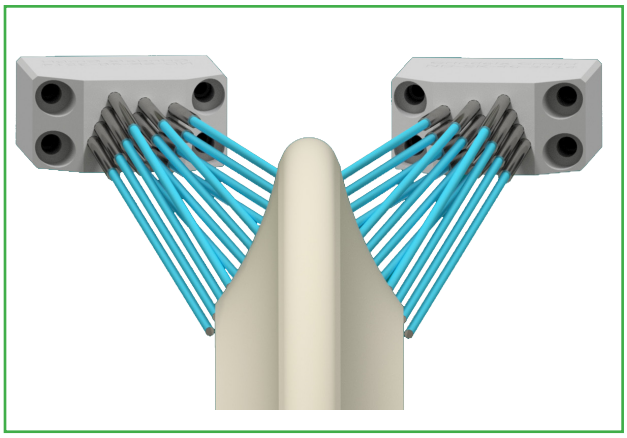
Reduce your CO_2 Emissions

FUNCTION

The grinding wheel is cleaned by a nozzle and the grinding point is supplied with sufficient coolant.

This Grindaix nozzle can be supplied by inexpensive centrifugal pumps and does not require a separate Schultz filtration unit as would be necessary with screw pumps.

These Grindaix Nozzles are customised to the mounting options in your grinding machine.



SAMPLE CALCULATION (FOR OIL)

Nozzle	Pressure	Volume flow	Exit speed
Needle nozzle	5,2 bar	45 l/min	20 m/s
Cleaning nozzle	8 bar	56 l/min	25 m/s

THE NOZZLE CHARACTERISTIC CURVE

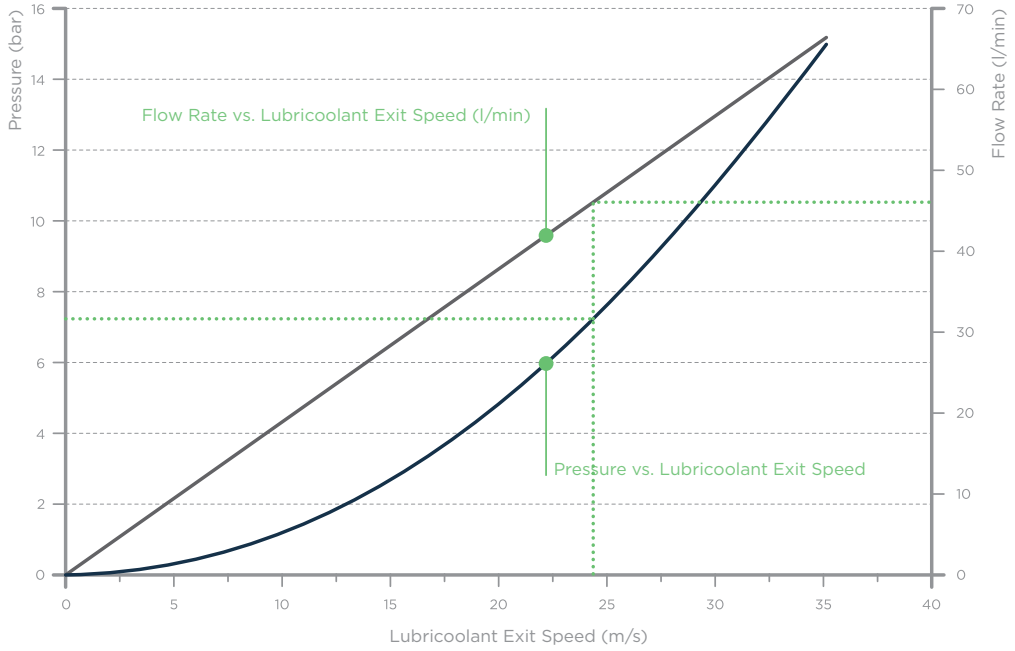
The nozzle diagram is intended to provide you with a first aid for the realisation of a suitable supply of the nozzle with regard to pressure and volume flow.

It shows the total pressure (static and dynamic) that would be measured directly in front of the nozzle.

This pressure does not correspond to your pump pressure or the delivery head of the pump.

Pressure losses in the supply line between pump and nozzle as well as influences of possible other cooling lubricant outlets on the same supply line are not considered.

Starting from the print, you will find the corresponding coolant outlet speed directly. Using the grey straight line you will then find the correlation between the cooling lubricant outlet speed and the associated cooling lubricant volume flow.



ORDER INFORMATION

Grindaix Nozzle	
Name	Description
ND-SK-	The nozzles are individually designed for the geometric parameters of the grinding application. All nozzles incl. characteristic curves.

Auxiliary Equipment	
Name	Description
Pressure Sensor	analog/digital
Pressure Sensor Connector	standard 1/4“
Compressed Air Connector	nozzle cleaning ø 1/4“
Wear Protection	available in all widths and geometries
Profile geometry stabilizer	available in all widths and geometries
Coolant Pointer	laser adjustment aid - nozzle positioning
Coolant Display	device for grinding burn monitoring

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